## Patent Claims:

- 1. A method of estimating the pitch of a speech signal
- 5 (2), said method comprising the steps of:
  - · dividing the speech signal into segments,
  - calculating for each segment a conformity function for the signal, and
- detecting peaks in the conformity function,
- 10 characterized in that the method further comprises the steps of:
  - calculating an average value of pitch estimates estimated in a number of previous segments,
  - calculating for each peak in the conformity function the difference between the position of the peak and said average value, and
    - using the position of the peak having the smallest value of said difference as an estimate of the pitch.

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- 2. A method according to claim 1, characterized in that it further comprises the steps of:
  - sampling the speech signal to obtain a series of samples, and
- performing said division into segments such that each segment has a fixed number of consecutive samples.
- 3. A method according to claim 1 or 2, charac-30 terized in that it further comprises the steps of:
  - estimating a set of filter parameters using linear predictive analysis (LPA),
- providing a modified signal (26) by filtering the speech signal through a filter based on said estimated set of filter parameters, and

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- calculating said conformity function of the modified signal.
- A method according to any one of claims 1 to 3,
  c h a r a c t e r i z e d in that said conformity function is calculated as an autocorrelation function.
- 5. A method according to any one of claims 1 to 4, characterized in that it further comprises 10 the step of:
  - selecting, if the peak having the smallest value of said difference is represented by a number of samples, the sample having the maximum amplitude of said conformity function as said estimate of the pitch.
  - 6. Use of the method according to any one of claims 1 to 5 in a mobile telephone.
- 20 7. A device adapted to estimate the pitch of a speech signal, and comprising:
  - means (3) for dividing the speech signal into segments,
  - means (5) for calculating for each segment a conformity function for the signal, and
  - means (6) for detecting peaks in the conformity function.
  - c h a r a c t e r i z e d in that the device is further adapted to:
- calculate an average value of pitch estimates estimated in a number of previous segments,
  - calculate for each peak in the conformity function the difference between the position of the peak and said average value, and

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- use the position of the peak having the smallest value of said difference as an estimate of the pitch.
- 5 8. A device according to claim 7, characterized in that it further comprises:
  - means (3) for sampling the speech signal to obtain a series of samples, and
  - means for performing said division into segments such that each segment has a fixed number of consecutive samples.
  - 9. A device according to claim 7 or 8, characterized in that it further comprises:
- means (4; 24) for estimating a set of filter parameters using linear predictive analysis (LPA),
  - means (4; 25) for providing a modified signal by filtering the speech signal through a filter based on said estimated set of filter parameters, and
- means (5) for calculating said conformity function of the modified signal.
  - 10. A device according to any one of claims 7 to 9, characterized in that said conformity function is an autocorrelation function.
    - 11. A device according to any one of claims 7 to 10, c h a r a c t e r i z e d in that it is further adapted to
- 30 select, if the peak having the smallest value of said difference is represented by a number of samples, the sample having the maximum amplitude of said conformity function as said estimate of the pitch.

- 12. A device according to any one of claims 7 to 11, c h a r a c t e r i z e d  $\,$  in that the device is a mobile telephone.
- 5 13. A device according to any one of claims 7 to 11, c h a r a c t e r i z e d in that the device is an integrated circuit.